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SOME THOUGHTS ON REGIONAL ECONOMICS AS A SOURCE OF SCHOLARLY CONTRIBUTIONS ^{/1/}

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Abstract

The present study seeks to extend the depth and scope of a very useful earlier study by Isserman (2004). Using Isserman (2004) as a starting point and using more recent data [for the year 2009], this study seeks to provide a broader and more in-depth perspective on the role and relative contribution of Regional Economics research in the pertinent scholarly literature as a whole. Interestingly, by taking into consideration the size of a subfield or field in terms of the number of its SSCI-journals, Regional Science journals manifest/reflect a higher impact than the journals of Economics and Geography. Hence, RSAI journals appear to be contributing quite productively, given the relative size of their field.

JEL classifications: B2, B4, C4, R1.

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SOME THOUGHTS ON REGIONAL ECONOMICS AS A SOURCE OF SCHOLARLY CONTRIBUTIONS

I. Introduction

Regional Economics, broadly defined to include Regional Development and Urban Economics, established a clear identity as a major sub-field of Economics by the 1950s. This fact is confirmed by the establishment of scholarly journals specializing in Regional Economics during the 1950s time frame [e.g., *Papers in Regional Science* and the *Journal of Regional Science*]. Furthermore, this observation is further supported by the rapid growth in the number of such journals (Kau and Johnson, 1983; Durden and Knox, 2000) during the 1960s and 1970s [e.g., the *Annals of Regional Science*, *Growth and Change*, *International Regional Science Review*, *Review of Regional Studies*, *Regional Science Perspectives/Journal of Regional Analysis and Policy*, *Regional Science and Urban Economics*, *Regional Studies*, and *Urban Studies*].

Interestingly, on the 50th anniversary of the RSAI [Regional Science Association International], Isserman (2004) provided panegyric statistics for a grouping of five Regional Science Journals [the *Journal of Regional Science*, *Papers in Regional Science*, *Regional Science and Urban Economics*, *International Regional Science Review*, and the *Annals of Regional Science*]. His study involved an assessment of the impact of RSAI research as reflected in citations data involving these six scholarly outlets. The present study seeks to extend the depth and scope of this very useful initial study by Isserman (2004) so as to provide a broader, more robust perspective on the role and relative contribution of Regional Economics in the pertinent scholarly literature as a whole.

II. A Broader Perspective

Accompanying the publication of the Isserman (2004) study, a paper by Batey (2004) observes that the “self-congratulatory” orientation of the celebration of the 50th anniversary of the RSAI should be accompanied by at least some degree of humility. This is clear from the words by Batey (2004, p. 4) that “A major element of the anniversary celebrations will ensure that there is a self-critical assessment of our research...” While the latter consideration is effectively missing from Isserman (2004), it must be acknowledged and can certainly be argued that the latter study was effectively intended to demonstrate the undeniable highly respected stature that Regional Economics had achieved. Moreover, on the one hand, the Isserman (2004) study is very useful in accomplishing this goal; on the other hand, as it turns out, it is also very useful in serving as a point of departure for a broader and more in-depth (and more current) analysis of the Regional Economics discipline and its contributions. As suggested above, this is indeed the goal of the present study.

To begin the discussion, consider the Isserman (2004) assessment of the impact of RSAI research as reflected in citations data for the five journals upon which he focuses, as summarized in Table 1.

Table 1: The Major RSAI Journals [Initial List]

Journal	Acronym	Since	Citations
<i>Journal of Regional Science</i>	<i>JRS</i>	1958	11, 589
<i>Papers in Regional Science</i>	<i>PiRS</i>	1955	6,937
<i>Regional Science and Urban Economics</i>	<i>RSUE</i>	1971	6,066
<i>International Regional Science Review</i>	<i>IRSR</i>	1975	2,668
<i>Annals of Regional Science</i>	<i>ARS</i>	1967	1,837

Source: Isserman (2004, p. 95)

As a first assessment, this information could lead to potentially misleading inferences or undermine any effort to make strong inferences. Indeed, if one focuses, e.g., on the first line of Table 1, a summary of *Journal of Regional Science* citations data reveals that over the 1982-2002 period, *Journal of Regional Science* articles have been cited 11,589 times. The problem with trying to interpret this figure is that there is no perspective provided, i.e., nothing against which to compare/contrast it.

But just how should such a number be interpreted? Is it a reflection of great success? Unfortunately, the raw numbers in Table 1 do not speak for themselves. Arguably, in order to provide a genuinely useful interpretation for such statistics, these citation statistics data must, at a minimum, be compared with other pertinent and similar data. For Regional Science, this alternative database could reasonably be drawn from the two generally related, traditional disciplinary fields that most closely parallel it, namely, Economics and Geography. In other words, in order to provide an appropriate assessment of RSAI journals, these journals arguably should be compared to journals in these sister fields. Furthermore, at least two major Regional Economics [broadly defined] journals are omitted from the Isserman (2004) list and clearly should be added to it, namely, *Regional Studies* and *Urban Studies*.

In order to begin to help provide a more useful interpretation and evaluation, some basic bibliometrics for journals of the RSAI and those of the Regional subfield are considered. Table 2 presents the total citations (TC) *per year* during the period 1997-2009 for these journals.

Table 2: Total Annual Citations for Regional-Urban Journals
(1997-2009)

Journal	<i>ARS</i>	<i>IRSR</i>	<i>JRS</i>	<i>PiRS</i>	<i>RSUE</i>	<i>REG ST</i>	<i>UR ST</i>
1997	82	128	449	176	382	595	694
1998	124	146	397	197	370	703	836
1999	102	150	422	227	387	706	939
2000	141	151	446	232	462	798	1013
2001	111	120	399	196	450	882	1212
2002	135	182	409	254	468	923	1358
2003	191	244	524	266	556	1000	1574
2004	246	268	511	315	601	1154	1681
2005	234	240	538	304	652	1311	1719
2006	240	272	565	302	647	1227	2079
2007	326	348	704	407	796	1620	2724
2008	429	358	742	572	962	1769	2826
2009	648	523	1136	904	1252	2840	4137

Source: Journal Citation Reports

In accordance with the suggestion above, it is observed that two journals have been added to the database for the present analysis: *Regional Studies* (*REG ST*) and *Urban Studies* (*UR ST*). All of these seven of the journals shown in Table 2 are Social Science Citation Index (SSCI) registered journals. The addition/inclusion of *Regional Studies* and *Urban Studies* to/on this list of Regional Economics journals helps to “complete” (better define) the SSCI sub-field “Regional-Urban Research,” although a strong argument for adding *The Review of Regional Studies* [and perhaps even the *Journal of Regional Analysis and Policy*] to the list could be made; nevertheless, this study will simply adopt the two new journals indicated in Table 2. The *five* major journals identified by Isserman (2004) have total citations of between 82 and 1252 *per year* if the study is extended through 2009. Interestingly, the two additional journals (*Regional Studies* and *Urban Studies*) actually have *much* higher average *annual* rates of total citations than the initial set of five RSAI journals listed in Isserman (2004). Interestingly, **the total annual citations increased more than 100% [more than doubled] between 2004 and 2009.**

As with nearly any index, other measures of whatever is of pertinence and interest can also be constructed. For instance, in lieu of citations, an alternative bibliometric indicator that would seem reasonable in order to assess the contribution of a field of study [in this case Regional Economics] is the “Impact Factor,” or, simply, IF. The IF for any given journal in year *t* is the total number of citations received in year *t* divided by the total number of articles published in that journal over a specific time period, usually the previous two years. By considering the IF for the Regional Economics subfield which incorporates all seven of the RSAI-journals identified in Table 2, Table 3 is constructed.

Table 3: The Impact Factor of the Regional-Urban Subfield
(1997-2009) according to SSCI

Journal	<i>ARS</i>	<i>IRSR</i>	<i>JRS</i>	<i>PiRS</i>	<i>RSUE</i>	<i>REG ST</i>	<i>UR STUD</i>
Year							
1997	0.23	0.48	0.31	0.31	0.42	0.83	0.77
1998	0.46	0.54	0.43	0.42	0.71	1.07	1.05
1999	0.27	0.45	0.67	0.16	0.34	0.86	0.92
2000	0.76	0.90	0.65	0.18	0.46	1.02	0.81
2001	0.32	0.74	0.45	0.45	0.72	1.43	0.88
2002	0.37	0.46	0.56	0.45	0.63	0.97	0.98
2003	0.38	0.59	0.68	0.50	0.69	0.92	1.19
2004	0.29	1.46	0.63	0.48	0.69	1.65	1.12
2005	0.38	1.05	0.74	0.47	0.74	1.52	0.98
2006	0.25	1.10	1.10	0.52	0.62	1.16	0.99
2007	0.50	1.72	0.78	0.57	0.88	1.79	1.27
2008	0.53	0.93	0.95	1.25	1.21	0.98	1.38
2009	0.82	0.93	1.13	1.39	0.91	1.46	1.30

The first five journals, which are those journals included in Isserman (2004), have an IF in the range of 0.23 to 1.39, depending upon the year considered and the journal upon which one is focused. Interestingly, but in view of the information provided in Table 2 above, not surprisingly, the two additional journals [*Regional Studies* and *Urban Studies*] have a IF levels between 0.77 and 1.65. This information, in conjunction with that in the last two columns of Table 2, could be interpreted as the foundation for an argument that it is appropriate—if not critical—to include these two journals when assessing the significance/scholarly contribution of the Regional Economics sub-field. In any case, **on the average, an increase in the values of the IFs between 2004 and 2009 can be observed.**

Table 4 is generated by **depicting** the number of articles per year in all journals of our sampling concerning the journals of Regional –Urban sub-field.

Table 4: The number of articles per year for the Regional-Urban Subfield (2004-2009)

<i>Journal Title</i>	<i>Number of Articles</i>					
	<i>04</i>	<i>05</i>	<i>06</i>	<i>07</i>	<i>08</i>	<i>09</i>
<i>ARS</i>	30	43	49	49	52	52
<i>IRSR</i>	14	14	15	17	16	23
<i>JRS</i>	27	28	37	35	33	36
<i>PiRS</i>	33	30	29	29	29	43
<i>RSUE</i>	35	42	36	38	40	71
<i>REG ST</i>	60	70	68	92	78	85
<i>UR ST</i>	123	118	116	123	116	110

Most of the journals [those identified by Isserman (2009)] published less than 35 articles for the year 2004, but *Regional Studies* and *Urban Studies* annually published 60 and 123 articles, respectively. This difference in the *number* of published articles among our sample of journals might well be expected to generate better or at least alternative bibliometric indicators, e.g., Impact Factors. **Observe next the substantial increase in the number of published articles in almost all journals in the year 2009 as compared to the year 2004.**

Can the observed increase in the number of published articles per year be considered as a systematic effort of the editors to produce higher Impact factors and higher Total Citations?

There are other bibliometric metrics for journal impact evaluation such as PageRank (which is a weighted Impact Factor), Eigenfactor, and SCImago Journal Rank, Immediacy Index, the Cited Half-life (CHL); these metrics will be considered in a forthcoming article.

For instance, the Immediacy Index is the number of citations the articles in a journal receive in a given year divided by the number of articles published. The Cited Half-life (CHL) is the median age of the articles that were cited in Journal Citation Reports each year. This is the long-term value of source items in a single journal publication according to ISI. A primary research journal should have a longer CHL than a communication journal. The comparison of CHL of the journals can reveal the differences in format and publication history, **but not differences in journal quality.**

Every scientific field or sub-field has a different publication and citation pattern (reference list length, inter-field citation traffic, growth of fields, short articles etc). There are, therefore, variations in the robustness of bibliometrics between different fields and sub-fields. Citations statistics are more robust in fields that publish and cite more frequently. Moreover, if we change our commercial database Web of Science and we use other databases like Scopus and Google Scholar, we may generate a new publication and citation pattern for the same field or sub-field. A normalization process for the impact of journals for a field, e.g., the Regional-Urban sub-field might be desirable, but it is not so easy to have a acceptable normalization in the regional science community.

Naturally, comparing the above group of seven RSAI journals with equivalent major Economics and Geography journals may give a much more useful perspective of how well the RSAI-journals have been doing in terms of recognized contributions. Accordingly, Table 5 is constructed using the same indicators, TC and IF, for the years 2004 and 2009 for a number of the top ranked (in terms of *both TC and IF*) Economics and Geography journals. It is noteworthy that the *American Economic Review* (*AER*) is omitted from the uppermost part of Table 5. This reflects the fact that although it receives numerous citations it also has a lesser record in terms of impact; this is because the *AER* publishes so many articles annually, a condition that reduces its impact factor (IF) substantially.

Table 5: Ranking Journals in Terms of Total Citations (TC) in Economics and Geography Journals in the period 2004- 2009

Field-Econ (172 SSCI Journals in 2004 and 247 Journals in 2009) Top Rated in both Categories	Total Citations (TC)					
	2004	2005	2006	2007	2008	2009
<i>Quarterly Journal of Economics</i>	6617	6947	7962	8713	11723	13985
<i>Journal of Economic Literature</i>	2422	2649	2845	3201	4069	5018
<i>Journal of Economic Perspectives</i>	2531	2713	3068	3319	4261	5649
<i>Journal of Political Economy</i>	8546	9206	10150	10878	13671	16350
<i>Journal of Financial Economics</i>	4529	5404	6615	6980	10013	12058
Field-Geography (35 SSCI Journals in 2004 and 62 Journals in 2009) Top Rated in both Categories						
<i>Journal of Economic Geography</i> *	207	270	403	571	763	1146
<i>Progress in Human Geography</i>	1010	1069	1410	1638	1889	2402
<i>Transactions of the Institute of British Geographers</i>	897	986	1154	1402	1581	1876
<i>Economic Geography</i> *	625	661	734	768	1048	1311
<i>Annals of the Association of American Geographers</i>	1476	1545	1872	2008	2317	2747

*Listed as both an Economics journal and a Geography journal.

Table 6: Ranking Journals in Terms of Impact Factor (IF) in Economics and Geography Journals in the period 2004-2009

Field-Econ (172 SSCI Journals in 2004 and 247 Journals in 2009) Top Rated in both Categories	Impact Factors (IF)					
	2004	2005	2006	2007	2008	2009
<i>Quarterly Journal of Economics</i>	4.41	4.77	3.93	3.68	5.04	5.64
<i>Journal of Economic Literature</i>	4.40	4.05	4.66	3.97	4.82	6.91
<i>Journal of Economic Perspectives</i>	2.95	2.63	2.83	2.83	3.94	3.55
<i>Journal of Political Economy</i>	2.62	2.24	3.19	4.19	3.72	3.84
<i>Journal of Financial Economics</i>	2.55	2.38	2.49	2.98	3.54	4.02
Field-Geography (35 SSCI Journals in 2004 and 62 Journals in 2009) Top Rated in both Categories						
<i>Journal of Economic Geography</i> *	3.13	3.22	2.51	2.67	2.93	3.93
<i>Progress in Human Geography</i>	2.14	2.61	3.44	3.72	3.48	3.59
<i>Transactions of the Institute of British Geographers</i>	2.38	2.21	3.50	4.06	3.96	3.41
<i>Economic Geography</i> *	2.32	1.75	1.81	2.06	2.96	3.45
<i>Annals of the Association of American Geographers</i>	2.11	1.75	2.14	2.96	2.67	2.56

*Listed as both an Economics journal and a Geography journal.

By comparing the bibliometric indicators of Tables 2, 3, 4, and 5, one might well conclude that the bibliometric indicators for the highest ranked Economics and Geography journals are, overall, higher than the counterpart indicators for the seven major identified RSAI journals for the years 2004 and 2009. But is this really a valid assessment concerning the scholarly contributions of RSAI-journals?

At first glance, it would appear that the visibility and usefulness of the major RSAI-journals are lower than the major Economics and Geography journals. However we might be prompted to ask: “What are the determinants of journal visibility?” There are some critical questions in the history of bibliometrics that are pertinent to this issue. For instance, what is the relationship between the *size of a field, subfield, or forum* and the *magnitude* of its *corresponding* journal bibliometric indicators?

Not surprisingly, a positive scale relationship has been observed between the *size of a field* and its *bibliometric indicators* (Moed, 2005). Thus, major economics journals should be expected to have much higher values on the TC and IF indicators than major geography journals—simply due to the factor of *size*: the field of Economics has a *much* larger membership than that of Geography. Similarly, for the same reason (*size of field*) the same could be expected when comparing Economics to the Regional-Urban sub-field (RSAI-sub-field). Ideally, perhaps obviously, this field size/membership factor should be adjusted for in the assessment of the scholarly contribution process. Specifically, bibliometric indicators should be normalized with respect to size of the field or subfield. However, there is no generally accepted procedure for doing this.

Should the size of a field be measured by the number of its members (professionals) or by the number of its journals? In principle, the number of RSAI members could be compared to the numbers of members of economics associations or geography associations. This is potentially a misleading endeavour, however, because the professionals in such associations and disciplines have highly varying degrees of research participation levels, including that of “retirement” status. Furthermore, since many persons belong to several economics and/or non-economics associations, and since this pattern differs from person to person and from discipline to discipline, there could be a “double counting” problem. Using membership numbers could be very misleading. A viable (yet still imperfect) alternative but one that nonetheless integrates across countries and at the same time reflects variations in active research participation is the number of journals in a given field as a proxy for the scale/size of a discipline. This is the option adopted here, although there is no reason to believe that this approach will necessarily yield markedly different outcomes than use of the membership figures.

In Table 7 of the present study, scale effect has been normalized (RSAI-sub-field, Economics-field, and Geography-field) for each of the listed Journals by dividing the respective journal impact factor (IF) by the number of journals listed in the field *according to SSCI indexed journals*. Interestingly, by taking into consideration the *size* of a sub-field or field in terms of the number of SSCI-journals, Regional Science journals actually manifest/reflect a higher *average adjusted* impact than the journals of the broader fields of Economics and Geography. Hence, RSAI journals appear to be contributing quite productively, given the relative size of their field. This conclusion is, in spirit, compatible with the more preliminary findings in Isserman (2004).

Table 7: The Normalized Impact Factors of Economics-, Geography- and Regional-Urban-Journals for **the period** 2004-2009.

<i>Field- Econ Top Rated in both Categories</i>	<i>Normalized Impact Factor (NIF)</i>					
	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
<i>Quarterly Journal of Economics</i>	0.025					0.022
<i>Journal of Economic Literature</i>	0.025					0.027
<i>Journal of Economic Perspectives</i>	0.017					0.014
<i>Journal of Political Economy</i>	0.015					0.015
<i>Journal of Financial Economics</i>	0.010					0.016
Field-Geography Top Rated in both Categories						
<i>Journal of Economic Geography</i>	0.080					0.062
<i>Progress in Human Geography</i>	0.061					0.057
<i>Transactions of the Institute of British Geographers</i>	0.068					0.055
<i>Economic Geography</i>	0.062					0.054
<i>Annals of the Association of American Geographers</i>	0.060					0.040
Field-Regional Science Top Rated in both Categories						
<i>ARS</i>	0.022					0.050
<i>IRSR</i>	0.112					0.058
<i>JRS</i>	0.048					0.068
<i>PiRS</i>	0.036					0.086
<i>RSUE</i>	0.053					0.056
<i>REG ST</i>	0.126					0.091
<i>UR STUD</i>	0.086					0.081

The reason for the dramatic increase of IF of all journals in our sampling might be the increased utilization of bibliometrics-based rankings in academia!

Every journal has 4 stages:

- 1. The economic birth**
- 2. The bibliometric birth**
- 3. The bibliometric death**
- 4. The economic death**

The journal editors had to generate the transition from stage 1 to stage 2 and to keep the journal registered in a bibliometric database. Some 20 years ago, there was not any competition for excellence between the editors. In the beginning of 1990:s the ranking of Universities became a “bitter reality” for financial rewards in academia in a minimal scale, but the ranking-culmination was around 2005.

By the year 2005, many European countries, Australia, New Zealand, China, European Union etc. utilized bibliometrics-based ranking systems for the finance of the higher education and research. To manage these national and international assessments the use of “best journals” was considered necessary.

How could they define these “best journals”? The easiest and the most common method was the use of Impact Factor. Some countries used more complex Impact Factors the so called “Modified Impact Factors” (see Sarafoglou, 2006).

Historically research evaluation has been based on qualitative methods (peer reviews), quantitative methods (bibliometrics, econometrics and operational research).

There is a lot of international literature concerning research evaluation since the 1900’s (Sarafoglou & Haynes, 1996 and Sarafoglou, 2006).

In England, the Higher Education Funding Council has conducted evaluations periodically (from 5 to 7 years) in form of Research Assessment Exercises (RAE) as a guide to distribute research money to the institutions of higher education.

Australia has developed two alternative evaluations systems: At first,

the Research Quality Framework (RQF) and then the Excellence for Research in Australia (ERA) . RQF was an assessment and funding model. This model was inspired by the English RAE. The focus was on quality and impact of research.

Jiao Tong University in Shanghai has been publishing since 2003 the "Academic Ranking of World Universities". In this ranking, they combined bibliometric indicators with Nobel Prizes and other prizes.

Mass media have initiated rankings to inform students and the general public. The ranking idiocracy in the US is that the rankings are generated by private companies.

III. Overview

Journal quality and status and discipline sub-field quality and status may be far more complex concepts than is usually appreciated; therefore, it follows that the quality/status issue can be addressed only partially by these bibliometric indicators (Forsund and Sarafoglou, 2005; Sarafoglou and Haynes, 1990; Maier, 2006).

Future assessments for journal evaluation (or sub-field evaluation) arguably should utilize other bibliographic databases (Google, Elsevier, and so forth) in combination with the ISI database. Furthermore, to the extent possible, all journals, not just SSCI indexed ones, as well as databases for books and working papers, could be included in the evaluations of publications in any particular field.

In conclusion, we should appreciate that journal ranking [or sub-field ranking] is a rather complicated task that can be pursued only with expressed qualifications that acknowledge the limitations of any methodology. Thus, it is important to utilize bibliometric tools with an eye toward rational albeit imperfect assessment. The apparent "father" of bibliometric analysis, Eugene Garfield (1963, p.101), years ago pointed out that a bibliometric indicator "is a very useful tool for evaluation of journals, but it must be used discretely."

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